

13:8-11, 13:23-14:1; Honeywell Demonstrative Slides 8-10 (used in opening statement)) The prosecution history does not support Honeywell's interpretation. The reference to the inlet guide vanes in the preamble provides the antecedent basis for the subsequent description of the use and function of the inlet guide vanes later in the claims. As the Federal Circuit expressly recognized, the IGV limitation includes ““both the claimed structure of the inlet guide vanes [referenced in the preamble of the claims] and their claimed function in the surge control system [set forth as elements 4(d), 19(g) and 8(f)]””. *Honeywell*, 370 F.3d at 1137 n.2. In fact, at the remand trial Honeywell conceded that the reference to the inlet guide vanes in the preamble is part and parcel of the inlet guide vane limitation. (Honeywell Opening, Trial Tr. 9:9-11 (referring to Honeywell Demonstrative Slide 5)) Accordingly, the reference to the physical inlet guide vane structure in each claim's preamble is not a distinct limitation separate and apart from the IGV limitation, and thus could not have been an independent reason for Honeywell's amendment.

**b. Claim Elements 4(d), 19(g) and 8(f) Include Only The IGV Limitation**

283. To the extent Honeywell argues that elements 4(d), 19(g) and 8(f) contain additional limitations other than the IGV limitation, any one of which purportedly may have been the reason for the amendment, that argument is unsupported. Honeywell asserted in its pretrial brief, for example, that ““guide vane position sensor”” and ““between the inlet guide vanes ...”” are separate limitations within element 19(g).<sup>5</sup> (Hon. Trial Br. at 8) As the Federal Circuit recognized, however, the IGV limitation added by amendment includes both the physical structure and the function related to the use of the inlet guide vanes in the surge control system. *Honeywell*, 370 F.3d at 1137 n.2 (*e.g.* quoting the entirety of element 4(d) as the “[i]nlet guide vane limitation”). Honeywell also conceded at the remand trial that the entirety of elements

4(d), 19(g) and 8(f) constitutes a single limitation – the IGV limitation. (Honeywell Opening, Trial Tr. 9:9-11 (referring to Honeywell Demonstrative Slide 5))

284. The language of elements 4(d), 19(g) and 8(f) all relates to the inlet guide vanes, their function, and how they are used in relation to the other elements of the claimed surge control system. Accordingly, and consistent with the Federal Circuit's treatment of this limitation, elements 4(d), 19(g) and 8(f) each consist of a single limitation – the IGV limitation. This conclusion is also consistent with the parties' treatment of the IGV limitation throughout the long history of this litigation. Honeywell consistently treated elements 4(d), 19(g) and 8(f) as consisting of only a single limitation for purposes of its infringement analysis. In the 2001 trial, Honeywell consistently, and successfully, argued that each of these elements was met by a single corresponding feature of HSC's surge control system – its use of IGV position.

**c. Claim 19's "Sensing Of A Predetermined Parameter" and "Outlet" Requirements Were Not New Limitations Added By The Amendments At Issue**

285. As to claim 19, Honeywell suggests that the "sensing of a predetermined parameter in element (b)" is a separate limitation added by the relevant amendment that may have been the reason for overcoming the prior art. (Honeywell Opening, Trial Tr. 12:18-20; Honeywell Demonstrative Slide 9) This argument is wholly unsupported. The prosecution history makes clear, and Honeywell separately conceded, that the language in element (b) to which Honeywell points was part of the original rejected independent claim, was not added by the amendment at issue, and thus is "irrelevant" to the issues in this proceeding. (Honeywell Opening, Trial Tr. 10:11-15) During prosecution, in response to the examiner's § 112 rejection, Honeywell clarified the original claims by adding the "to sense..." language in element (b) on

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<sup>5</sup> Notably, although Honeywell made this argument in its pretrial brief, it did not appear to be advancing the argument at the March 23-24, 2006 trial. (Opening, Trial Tr. 12)

which Honeywell relies. (JX 31 at HSB 401476, 401455-57) This clarification – which Honeywell conceded at trial was a “minor change” and “irrelevant” to the issues on remand (Honeywell Opening, Trial Tr. 10:11-15) – did not add any limitations to the original claims, and thus was not the reason for the amendment at issue.

286. Honeywell also argues that the correction of a typographical error in claim 19 constitutes an additional “limitation” added by the relevant amendment, and that this change – as opposed to the addition of the IGV limitation – may have been the reason behind the amendment. Honeywell suggests that the word “outlet” in element (e) of claim 19 is a separate limitation added from the original dependent claim. (Honeywell Opening, Trial Tr. 12:21) The prosecution history does not support Honeywell’s argument. The prosecution history makes clear that “outlet” was handwritten in by the examiner merely to correct a typographical error to maintain consistency with the rest of the language of that claim. (JX 31 at HSB 401472) It was not a new limitation, nor was it even part of the amendment at issue.

**d. The Additional Language The Amendments Added To Claim 8 Was Not The Reason For The Amendments**

287. As to claim 8, Honeywell argues that “other limitations” might have been the real reason behind the amendment, thus making the addition of the IGV limitation merely tangential to the amendment and the allowance of claim 8. Specifically, Honeywell references (1) claim 8’s requirement that the flow-related parameter be “substantially independent of the temperature of the compressed air,” which was added from the original dependent claim to the end of element (d), and (2) the requirement of a “comparator means having an adjustable control set point representing said desired value of said [flow-related] parameter,” which was added from the original dependent claim to the end of element (e). (Honeywell Opening, Trial Tr. 10:25-11:10; JX 31 at HSB 401466) Honeywell has not shown, however, that the two additional

“limitations” on which it relies – as opposed to the IGV limitation – were the reason for the amendment or the allowance. The prosecution history shows they were not.

288. Both of the “limitations” from claim 8 on which Honeywell relies were contained in original application claim 7, and both were rejected as having been in the prior art, as explained below. (JX 31 at HSB 401430-31, 401457) Accordingly, neither could have been the reason for the amendment or the claim’s allowance.

289. The requirement that the flow-related parameter be “substantially independent of temperature” is an inherent feature of the flow-related parameter discussed in the patents’ specification and in many of the claims -- and which the examiner expressly found existed in the prior art. Application claim 7, for example, required the use of this flow-related parameter, labeled “(Pt-Ps)/Pt,”<sup>6</sup> which the patents’ specification states necessarily “is insensitive to variations in compressor inlet (i.e. ambient) temperature.” (JX 30 at col. 8:57-61, and col. 2:63 – col. 3:2; *see also* DX 361, Hon. Responses to HSC Interrogatories (recognizing that the patented technology inherently operates independently of ambient temperature)) Application claim 7 thus included the “substantially independent of temperature” limitation of issued claim 8.

290. The examiner rejected application Claim 7 based on the prior art, and in doing so the examiner found that the prior art disclosed and rendered obvious the use of a flow related parameter that was “substantially independent of temperature.” (JX 31 at HSB 401456-57)

291. Application claim 7 also required a “comparator means” for receiving the flow-related parameter and comparing it to the “desired value of [the flow-related] parameter” (i.e. the set point) and “at least one reset signal indicative of said desired value of said parameter.” (JX

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<sup>6</sup> Application claim 7 spelled this formula out in words as the “differential” between “the total pressure and the static pressure,” and that difference “divided by” the “total pressure.” (JX 31 at HSB 401430-31 (claim 7, elements (1) – (3)))

31 at HSB 401430-31 (claim 7, element (4)). As the specification explained, a “reset signal” was used to adjust the set point of the comparator. (JX 45 at 6:63-7:3) Thus, application claim 7 provided for a comparator means having an adjustable control set point representing the desired value of the flow-related parameter, just as the limitation in issued claim 8 on which Honeywell relies. In rejecting application claim 7, therefore, the examiner also found claim 8’s adjustable set point comparator to be obvious in light of the prior art. (JX 31 at HSB 401457-58)

292. By rejecting application claim 7 – which included both of the “additional limitations” in claim 8 on which Honeywell relies – the examiner concluded that those limitations did not add any patentable subject matter. Accordingly, the “additional limitations” in claim 8 on which Honeywell relies could not have been the reason for the amendment, or the allowance, because they would not have distinguished the prior art. Notably, as with the asserted claims, the examiner allowed application claim 7 only if rewritten *to add the IGV limitation* from dependent application claim 8. (JX 31 at HSB 401431, 458) The prosecution history shows that the *reason* behind the amendments was to add the IGV limitation – and not some other limitation – to overcome the examiner’s prior art rejection and gain allowance of the claims.

293. This conclusion is consistent with not only the prosecution history, but also with the Federal Circuit’s decision in this case and the conclusion of the PTO when reviewing the purpose of Honeywell’s amendments. The Federal Circuit consistently treated the amendments as having a single purpose – to add the IGV limitation to overcome the examiner’s prior art rejections. *See Honeywell*, 370 F.3d at 1144. In its amicus brief in connection with Honeywell’s petition for certiorari in this case, the PTO, similarly concluded that the IGV limitation was “necessary” to secure allowance of the claims. (Ex. 20 to Hon. Trial Br., Amicus Br. at 18)

Neither concluded – as Honeywell contends – that the IGV limitation was irrelevant to the amendment and the allowance.

294. In sum, as to claims 4 and 19, the prosecution history makes clear that the amendments at issue added only the IGV limitation, and that the IGV limitation was the reason for the amendments. To the extent Honeywell added limitations other than the IGV limitation through the amendment to claim 8, the prosecution history makes clear that those “other limitations” were not behind the rationale for the amendment. Rather, the prosecution history shows that the IGV limitation – and not the “other limitations” – was the *reason* for the amendment. The IGV limitation is the only common limitation added to each of the claims at issue to overcome the examiner’s prior art rejection. The prosecution history also shows that the other “limitations” on which Honeywell relies were either not separate “limitations” at all (*e.g.* the reference to inlet guide vanes in the preamble), were not added by the amendments at issue (*e.g.* the § 112 clarification in claim 19), or were not made to overcome the prior art and gain allowance of the claims (*e.g.* the “comparator means” in claim 8). Accordingly, the prosecution history shows that the reason for the amendment was to add the IGV limitation – which specified using IGV position in a particular way in a surge control system – to overcome the examiner’s prior art rejections. That reason is not merely tangential to the alleged equivalent – the APS 3200’s use of IGV position in its surge control system.

**2. Honeywell Has Not Shown That Some “Other Limitation” – As Opposed To The IGV Limitation – Was Behind The Rationale For The Amendments**

295. Even if the Court were to accept Honeywell’s contention that *several* limitations “in combination,” *may have been* the reason for the amendments and the allowance of the claims (Honeywell Opening, Trial Tr. 17:24-18:7; 20:21-24), Honeywell’s argument still fails. Honeywell does not point to anything in the prosecution history that suggests that any limitation

other than the IGV limitation *was* the reason for the amendment and the allowance of the claims. Nor does Honeywell point to anything in the prosecution history that shows *which* of the purportedly multiple limitations that were added by each amendment was responsible for the amendment and the allowance. Honeywell argues only that “there is *nothing in the prosecution history to indicate* that Honeywell or the Examiner believed that it was the use of inlet guide vanes – as opposed to the other features of the invention that were added by the amendments – that was the reason for allowance.” (Hon. Reply Trial Br. at 4 (emphasis added)) In other words, at most, Honeywell argues that one simply cannot tell from the prosecution history whether the reason for the amendment was adding the use of IGV position, or some other feature.

296. Even accepting Honeywell’s interpretation of the amendments and the prosecution history, therefore, Honeywell has not met its burden of affirmatively showing that the reason for the amendment *was* only tangentially related to the use of IGV position. Due to Honeywell’s failure to explain the reasoning behind its amendment during prosecution, at best Honeywell can suggest only that the reason for the amendment and its relation to the use of IGV position is *unknown*. That is not enough to carry Honeywell’s burden. The *possibility* of an alternative, or tangential, reason for adding the IGV limitation – without having it set forth in the prosecution history – is not enough to overcome the *Festo* presumption. *Festo*, 344 F.3d at 1369 and 1372; *Biagro*, 423 F.3d at 1306.

297. Moreover, Honeywell has not even argued, much less proven, that the amendment was not made “to distinguish prior art patents, *based at least in part*, on the [IGV limitation] aspect of the invention.” See *Festo*, 344 F.3d at 1373. Even under Honeywell’s interpretation of the prosecution history, it is clear that Honeywell’s distinction of the prior art

was based at least in part on the IGV limitation it added by amendment. As *Festo* made clear, this alone is enough to find that Honeywell has not overcome the presumption of estoppel. *Id.*; see also *Windbrella*, 414 F. Supp. 2d at 319 (amendment is not tangential where “there is no explanation of this amendment in the record that would make [the limitation at issue] irrelevant”).

298. The case on which Honeywell primarily relies, *Insituform Technologies, Inc. v. CAT Contracting, Inc.*, 385 F.3d 1360 (Fed. Cir. 2004), in fact demonstrates why Honeywell cannot show a merely tangential relationship. In *Insituform*, the amendment at issue added multiple limitations from several different dependent claims, and unlike here, the patentee expressly explained in the prosecution history that the reason for his amendment related to only one of the limitations and was wholly unrelated to the limitation on which the equivalence determination was based. 385 F.3d at 1369-70.

299. In *Insituform*, the asserted claim was directed to a process for impregnating a flexible tube liner for underground pipes with resin prior to insertion of the liner into a damaged pipe. The examiner initially rejected the claim over a prior art patent that disclosed ““the use of a continuous vacuum ... at the far end of the tube opposite the resin source.”” *Id.* at 1369. In response, the patentee amended the application claim, incorporating three previously dependent claims into that single rejected independent claim, including one dependent claim related to the proximity of the vacuum to the resin source, and another related to the use of “a cup” for inserting the vacuum into the pipe. *Id.* at 1364, 1369. The prosecution history clearly demonstrated that the reason for the amendment was the addition of the limitation relating to the proximity of the vacuum, not the use of a “cup.” *Id.* at 1370.

300. The Federal Circuit emphasized that in the prosecution history: “Insituform had *explained the reason* for the amendment”; (2) “Insituform had *stated to the examiner*” that its claims were distinct from the prior art because the proximity of the vacuum tube to the resin source avoided the need for an exceedingly long suction compressor; (3) the “*stated reason* ... for Insituform’s amendment to overcome the [prior art] was to avoid the need to use a large compressor when the vacuum is created a significant distance from the resin source”; and (4) “Insituform *made it clear*” during prosecution “that the difference between its process and [the prior art] was that its process did not have the disadvantage of the Everson process of a large compressor at the end of the liner.” *Id.* at 1369-70 (citations omitted, emphasis added). In other words, the prosecution history clearly showed that the limitation on which Insituform relied to distinguish the prior art related to the proximity of the vacuum to the resin source – not the other limitations it added. *Id.* at 1369; *Biagro*, 423 F.3d at 1306 (explaining the Court’s holding in *Insituform*). Accordingly, the Federal Circuit concluded that “the only express limitation put on the invention by Insituform was the use of a vacuum source close to the resin.” 385 F.3d at 1370.

301. The question of equivalence in *Insituform*, however, did not relate to the aspect of the invention that Insituform had explained was the reason for the amendment – the proximity of the vacuum source to the resin. Rather, the question of equivalence related to the number of “cups” used by the allegedly infringing system, which used a multiple cup process rather than the single cup set forth in the asserted claim. *Id.* at 1370. Based on the clear articulation during prosecution that the rationale underlying its narrowing amendment (adding a limitation relating to proximity of the vacuum source to distinguish prior art) had nothing to do with the asserted

equivalent (relating to the number of vacuum cups), the Federal Circuit held that Insituform had successfully rebutted the *Festo* presumption. *Id.*

302. In *Insituform*, unlike here, the prosecution history made clear that “the reason for the amendment and the alleged equivalent involved *different aspects of the invention* – the location of the vacuum source relative to the resin versus the number of vacuum cups.” *Biagro*, 423 F.3d at 1306; *see also Windbrella*, 414 F. Supp. 2d at 319 (explaining that in *Insituform*, the “prosecution history explicitly demonstrated the reason for the amendment, and this rationale involved a different aspect of the invention than the alleged equivalent.”)

303. Unlike the clear prosecution record in *Insituform*, the prosecution record in this case contains no such clear statements by Honeywell establishing that some “other limitation” was behind the rationale for the amendment, or that the rationale was unrelated to the use of IGV position. Nor does the prosecution history show any reason for adding the IGV limitation other than to overcome the prior art. Unlike *Insituform*, even accepting Honeywell’s position that the relevant amendments added several limitations and that any one of those limitations *may have been* the reason for the amendments, Honeywell has not shown anything in the prosecution history that demonstrates that something other than the IGV limitation *was* the reason for its amendments. Accordingly, it cannot prevail on the tangential relation criterion. 385 F.3d at 1369-70.

304. Honeywell’s reliance on *Cordis Corp. v. Medtronic Avenue Inc.*, 336 F. Supp. 2d 363 (D. Del. 2004), is similarly misplaced. In *Cordis*, the patentee purposefully distinguished the prior art for reasons other than the reason for the equivalence, and explained those distinctions to the examiner and the public. 336 F. Supp. 2d at 370 (stating that “[i]n addressing Ersek [the prior art], Cordis focused on the double thickness of the bridge portions of Ersek’s

walls'') (citations omitted). Notably, *Cordis* was decided prior to the Federal Circuit's additional guidance on the "tangential relation" criterion in *Rhodia Chimie*, 402 F.3d 1371, and *Insituform*, 385 F.3d 1360. Each of those Federal Circuit cases subsequently addressed issues on which the *Cordis* court relied. First, in *Rhodia Chimie*, the Court rejected the principle that the reason for an amendment is tangential if the equivalent was not found in the prior art upon which the claims were rejected. 402 F.3d at 1383. The *Cordis* court had relied in part on that principle. 336 F. Supp. 2d at 369. Second, the *Cordis* court expressed concern that the defendant's approach would make the tangential relation criterion superfluous. *Id.* at 369-70. Subsequently, in *Insituform*, the Federal Circuit made clear that the tangential relation criterion is not superfluous and set forth the circumstances to which it applies. 385 F.3d at 1370. Thus, to the extent the *Cordis* case is in conflict, the Court should be guided by the Federal Circuit's subsequent decisions in *Rhodia Chimie* and *Insituform*.

305. In sum, Honeywell has not met its burden of establishing that the rationale underlying the narrowing amendments it made to the asserted claims of the '194 and '893 patents bore "no more than a tangential relation" to the equivalent to the inlet guide vane limitation.

#### **V. Honeywell Did Not Show Any "Other Reason" It Could Not Have Drafted A Claim That Would Have Literally Encompassed The Alleged Equivalent**

306. The third way that a patentee may overcome the *Festo* presumption is to show that there is "some other reason suggesting that the patentee could not reasonably be expected to have described the insubstantial substitute in question." *Festo*, 535 U.S. at 740-41.

307. "This category, while vague, must be a narrow one; it is available in order not to totally foreclose a patentee from relying on reasons, other than unforeseeability and tangentialness, to show that it did not surrender the alleged equivalent." *Festo*, 344 F.3d at 1370.

308. Like the tangential relation criterion, “[w]hen at all possible, determination of the third rebuttal criterion should also be limited to the prosecution history record.” *Id.*

309. The “other reason” criterion “may be satisfied when there was some reason, such as the shortcomings of language, why the patentee was prevented from describing the alleged equivalent when it narrowed the claim.” *Id.* “Importantly, this third criterion does not apply when the patentee could have described the equivalent, ‘but chose not to do so.’” *Honeywell*, 2006 U.S. Dist. LEXIS 11829, at \*8 (quoting *Festo*, 344 F.3d at 1372).

310. “[T]he patentee cannot rebut the presumption under the third criterion by pointing to ‘shortcomings’ and ‘imprecision’ of language that arise merely from the language chosen. Rather, the shortcomings and imprecision must arise from the language available.” *Id.* at \*10 (emphasis in original).

311. Honeywell does not argue that there were any “shortcoming of language” that prevented it from describing the alleged equivalent when it narrowed the claims. Honeywell does not assert that it *could* not have described the alleged equivalent, but rather only that it *would not have believed it had to*. Honeywell suggests two “other reasons” it would not have believed it had to describe the alleged equivalent when it narrowed its claims. Neither of Honeywell’s asserted “other reasons” supports its attempt to overcome the *Festo* presumption.

#### A. Honeywell’s First “Other Reason”: A “Reasonable Patent Attorney’s” View Of Prosecution History Estoppel In 1982

312. Honeywell argues that – despite the Federal Circuit’s holding in this case – a reasonable patent attorney at the time of the amendments “would not have believed that he had surrendered coverage of equivalents to inlet guide vane position use during prosecution of the ‘893 and ‘194 patents.” (Hon. Trial Br. at 28; *id.* at 27 (a reasonable patent attorney “would not

have seen the need to claim the equivalent literally because he would not have believed that he had surrendered it during prosecution”))

313. The Federal Circuit has already ruled that there is a presumption that Honeywell did in fact surrender coverage of equivalents to inlet guide vane position. *Honeywell*, 370 F.3d at 1144. To the extent Honeywell’s arguments rest on a purported change in the law between the time of the amendment and the present, it is “plainly improper because the Supreme Court’s decision in *Festo II* was geared toward avoiding ‘changes that disrupt the settled expectations of the inventing community.’” *Honeywell*, 2006 U.S. Dist. LEXIS 11829, at \*12 (quoting *Festo*, 535 U.S. at 739) Honeywell’s arguments conflict with the retroactive application of *Festo* and the Court’s “duty to ‘presume the amended text was composed with awareness of this rule.’” *Id.* (citing *Festo*, 535 U.S. at 741).

314. Whether Honeywell would have *believed* it was surrendering coverage at the time it made its narrowing amendments is irrelevant in light of the retroactive effect of the *Festo* presumption. The Federal Circuit specifically held in *Festo* that the presumption of surrender applies retroactively “to all granted patents and to all pending litigation that has not been concluded with a final judgment, including appeals,” regardless of a patent lawyer’s belief about the state of the patent law at the time of the amendment. *Festo*, 344 F.3d at 1370 n.4; *see also Festo*, 535 U.S. at 741 (stating that the “courts may presume the amended text was composed with awareness of this rule”). Honeywell cannot escape the retroactive effect of *Festo* by relying on a purported belief about the effect of its amendments that is inconsistent with the Federal Circuit’s holding in this case.

315. In addition, Honeywell’s first “other reason” is “directly contrary to the holding of *Biagro*.” *Honeywell*, 2006 U.S. Dist. LEXIS 11829, at \*12. Honeywell’s argument, based on

a reasonable patent attorney's purported belief that it would have been unnecessary and imprudent to draft claims to describe the equivalents, "in addition to being contrary to the holding of *Biagro*, is improper under *Festo III* and *Talbert Fuel*. In both of those cases, the Federal Circuit held that the presumption of surrender could not be rebutted if the patentee made a *choice* not to draft the claims to cover the equivalent." *Honeywell*, 2006 U.S. Dist. LEXIS 11829, at \*13.

**B. Honeywell's Second "Other Reason": That The Claims Literally Covered The Equivalent**

316. Honeywell also argues that it can overcome the presumption because the patentee, a patent prosecutor, or a reasonable person of ordinary skill in the art, "would have believed" at the time of the amendment that the claims literally covered the alleged equivalent, and thus that Honeywell would not have thought it necessary to amend the claims to literally encompass the equivalent.<sup>7</sup> (Honeywell Trial Br. at 27, 29 and Honeywell Reply Trial Br. at 19)

317. This purported "other reason" fails because "the expectations of the patentee, including the patentee's perhaps-reasonable belief that the amended claim covers the equivalent, is not relevant to rebuttal of the presumption." *Honeywell*, 2006 U.S. Dist. LEXIS 11829, at \*10 n.2. Accordingly, "a patentee's belief that the amended claim would cover the equivalent does not establish 'some other reason.'" *Id.* at \*10 (citing *Biagro*, 423 F.3d at 1307).

318. In addition, Honeywell's second "other reason" is "again contrary to *Biagro*." *Honeywell*, 2006 U.S. Dist. LEXIS 11829, at \*13. In *Biagro*, despite a finding that the claims

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<sup>7</sup> Notably, however, Honeywell in fact "concedes that the inlet guide vane limitation is not literally met by the accused device." *Honeywell*, 370 F.3d at 1136. Honeywell did not even alleged literal infringement of the '893 patent at trial. As to the '194 patent, the jury determined that the APS 3200 did not literally infringe, and the Court held that "there was substantial evidence from which a reasonable jury could conclude that the APS 3200 did not literally infringe ... the '194 patent." *Honeywell*, 166 F. Supp. 2d at 1018. Honeywell did not challenge the jury's finding of no literal infringement on appeal. *Honeywell*, 2006 U.S. Dist. LEXIS 11829, at \*2 n.1.

did not literally cover the accused device, the patentee argued that its purported belief at the time of the amendment that the accused device literally infringed was “another reason” that prosecution history estoppel should not apply. 423 F.3d at 1307. Thus, the patentee argued – like Honeywell does here – that it had no reason to draft a broader claim and thus, that estoppel should not apply. *Id.* The Federal Circuit rejected this argument “as merely an attempt to reargue” the court’s prior claim construction ruling that had precluded literal infringement. *Id.*

319. Like the patentee’s argument in *Biagro*, Honeywell’s argument is “merely an attempt to reargue” the previous finding of no literal infringement. *Biagro*, 423 F.3d at 1307; *see also Honeywell*, 2006 U.S. Dist. LEXIS 11829, at \*12-13 (Honeywell’s argument is “no more than an attempt by Honeywell to reargue claim construction”).

320. Honeywell’s argument is also “contrary to *Pioneer Magnetics*.” *Honeywell*, 2006 U.S. Dist. LEXIS 11829, at \*13. “Supposing, as Honeywell does, that the reasonable patent attorney knew about the equivalent, but failed to describe it in the amended claims (regardless of his belief to the contrary, *Biagro*, 423 F.3d at 1307), his failure falls squarely within the principle enunciated in *Pioneer Magnetics*. In other words, because the equivalent was (hypothetically) known in the prior art and was presumably describable in the amended claims, *see Medtronic Navigation*, 2006 U.S. Dist. LEXIS 10102, at \*22, the presumption is not rebutted by ‘some other reason.’” *Id.* at 13-14.

321. Honeywell’s reliance on *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 287 F. Supp. 2d 126 (D. Mass. 2003) – to the extent it is inconsistent with *Biagro* – is unavailing. This Court “must follow the teachings of [Biagro].” *Honeywell*, 2006 U.S. Dist. LEXIS 11829, at \*10 n.2. “Moreover, this court respectfully disagrees with the Massachusetts district court mainly because the *Amgen* opinion impermissibly focuses on the ‘reasonable expectations of the

patentee.”” 287 F. Supp. 2d at 156. It is true that the Supreme Court mentioned the expectations of patentees in *Festo II*, but it did so as an expression of the Court’s desire to avoid the ‘fundamental alteration’ of the rules that would result from the inflexible-bar rule created by the Federal Circuit in *Festo I*. On the other hand, the Court clearly stated that prosecution history estoppel focuses on ““the impact the amendment has on the subject matter,’ rather than the patentee’s intent in making the amendment. 535 U.S. at 736. Thus, the expectations of the patentee, including the patentee’s perhaps-reasonable belief that the amended claim covers the equivalent, is not relevant to rebuttal of the presumption.” *Honeywell*, 2006 U.S. Dist. LEXIS 11829, at \*10 n.2.

322. In short, none of Honeywell’s arguments are availing under the third *Festo* criterion. *Id.* at \*14. Accordingly, Honeywell has not met its burden of establishing ““some other reason”” that it could not reasonably have been expected to have drafted a claim that would have captured the asserted equivalent when it amended its claims in order to gain allowance.

## CONCLUSION

323. Honeywell has failed to rebut the *Festo* presumption that it surrendered all equivalents to the IGV limitations. Accordingly, Honeywell is barred by the doctrine of prosecution history estoppel from arguing that the APS 3200 infringes the ‘893 and ‘194 patents. As a result, the Court must enter judgment of non-infringement in favor of HSC.

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## Exhibit A

Signal

GTCP331-350 APU

## GAPD/MBB COORDination MEMO

TO H. J. Neufert FROM Ed GoffPAGE 1 OF 4SUBJECT: Load Compressor Surge  
Control SystemMEMO NO.: G 0430

REFERENCE: MBB-G 234

DATE SENT: 2-1-90

NOTE:

REPLY BY: \_\_\_\_\_

The following referenced information  
 is    
 is not  considered 'PROPRIETARY'  
 by the originator.

 REQUEST  INFORMATION REPLY TO: MBB-G 234, CDR 66, CDR 67

This memo answers Coord memo MBB-G 234 and CDR action item numbers 66 and 67. The following is a general description of the surge control system with particular attention to the questioned items: the flow sensor, the flow sensor curve in the ECB, the flow sensor switching logic, and the flow area linearizing curve. For a more general and extensive discussion, see the APU proposal.

The load compressor surge control system prevents surge by measuring and controlling discharge-corrected flow ( $W_c$ ) from the compressor to keep it above a limit, or setpoint. The corrected flow setpoint is a function of inlet temperature and IGV angle like the compressor surge line.

As shown in Figure 1, the flow sensor provides a (Pt-Ps)/Pt signal which is a function of the corrected flow. The flow sensor curve in the ECB simply uses the known characteristic of the flow sensor to convert  $\Delta P/Pt$  back into a measured corrected flow.

"Nothing contained herein shall be deemed to change the terms of any GTCP331-350 APU purchase order or contract."

"Transmittal of technical data contained herein is authorized by U.S. Department of Commerce Technical Assistance Agreement DL5964, Case No. B-214672 which expires August 31, 1990."

APPROVED BY:

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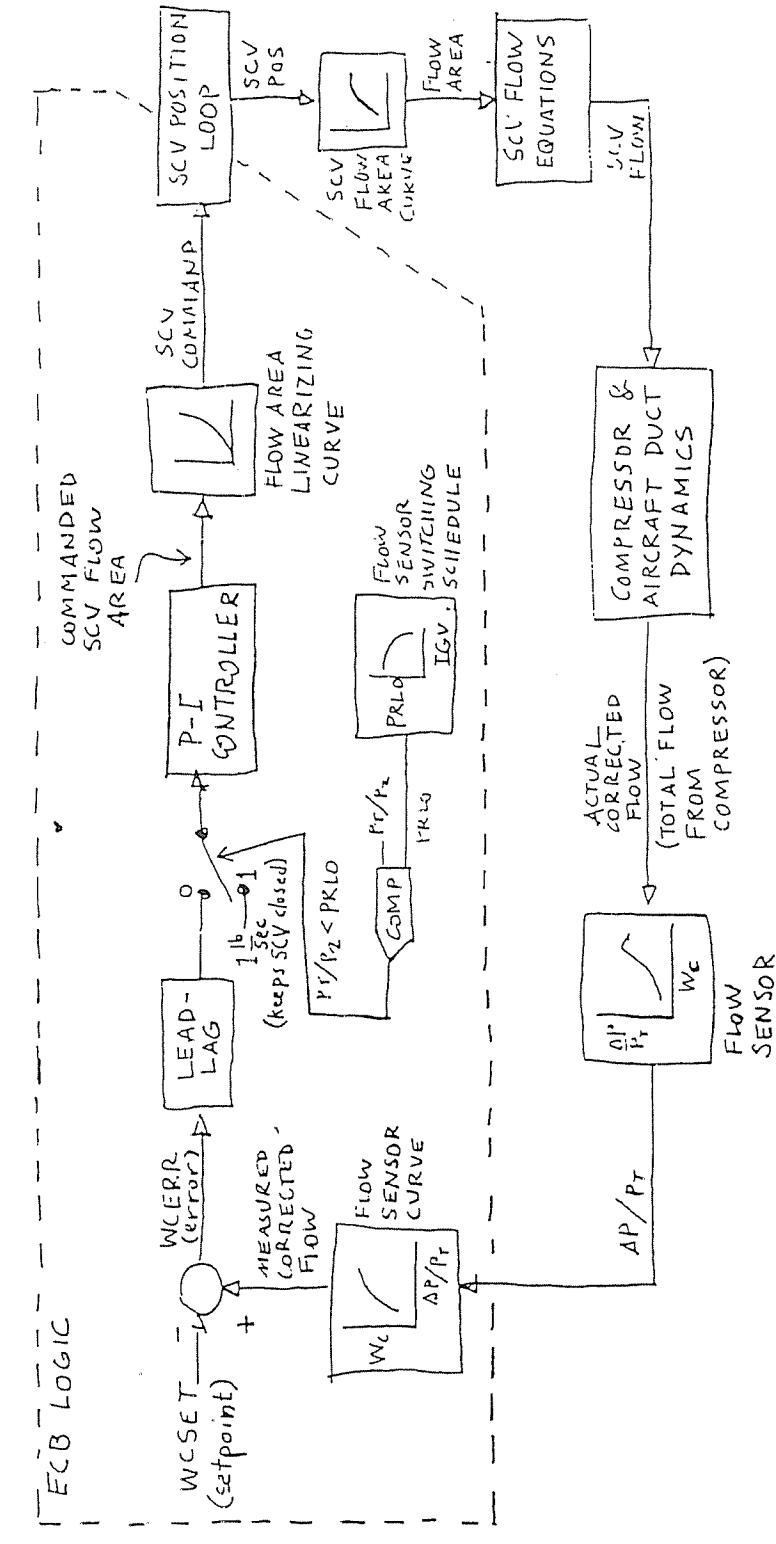
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Figure 1 STCP331-350 SURGE CONTROL SYSTEM SIMPLIFIED BLOCK DIAGRAM



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A lead-lag filter and P-I controller then acts on the corrected flow error to command the surge valve flow area. The flow area linearizing curve uses the known SCV flow characteristic to convert the commanded flow area into the corresponding valve angle. The flow area linearizing curve is useful because the geometry of the butterfly valve causes a very small "gain", or change in flow area per change in angle, as the valve begins to open. When the valve is further open, the "gain" is much higher. Since the controller gains must be selected so that the loop is stable at all conditions, the nonlinear valve "gain" would cause the loop to have a higher overall gain and fast response when the valve is near full-open, and a low overall loop gain and slow response when the valve is near full-closed. The flow area linearizing curve provides a nearly constant, high loop gain and fast response at all valve angles. This provides a significant benefit in terms of the amount of compressor surge margin needed to handle any given flow transient imposed by the aircraft.

The GTCP331-350 has a much improved flow sensing system over the previous 331 APUs. It incorporates a static pressure pickup in the load compressor diffuser and a total pressure pickup in the scroll discharge. This system has many advantages including:

- large  $\Delta P$  signal level allows use of a more rugged transducer
- inherent protection against positive  $\Delta P$  spikes which can damage the transducer (no need for "directional flow control" device)
- better accuracy since the  $\Delta P$  at the control setpoint is a large fraction of the full-scale value
- low signal noise

The flow sensor characteristic is shown in Figure 2.

Note that the  $\Delta P/P_t$  signal increases with corrected flow until the shock wave in the diffuser passes the static pickup hole, then  $\Delta P/P_t$  goes down as corrected flow increases. This phenomenon provides the inherent protection against  $\Delta P$  overpressure spikes. However, it makes the flow sensor unusable above about 2.5 lbm/sec. Since the surge control system is active only at lower corrected flows, this is not a detriment to the surge control system, which is the "raison d'être" for the flow sensor. Therefore, it is impossible to provide a flow sensor signal which is usable above 2.5 lbm/sec with this flow sensor.

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The "flow sensor switching schedule" in the surge control software is used also because of this shock wave phenomenon. At very high corrected flows (i.e. with surge valve full-open and cell valve full-open) the  $\Delta P/P_t$  signal actually becomes low enough to be equal to the control setpoint, even though the compressor is very far from surge. At this condition the flow sensor switching schedule allows the logic to distinguish which side of the flow sensor curve it is operating on. The flow sensor switching logic senses the compressor pressure ratio and keeps the surge valve closed at low pressure ratios even if the  $\Delta P/P_t$  signal is below the setpoint.

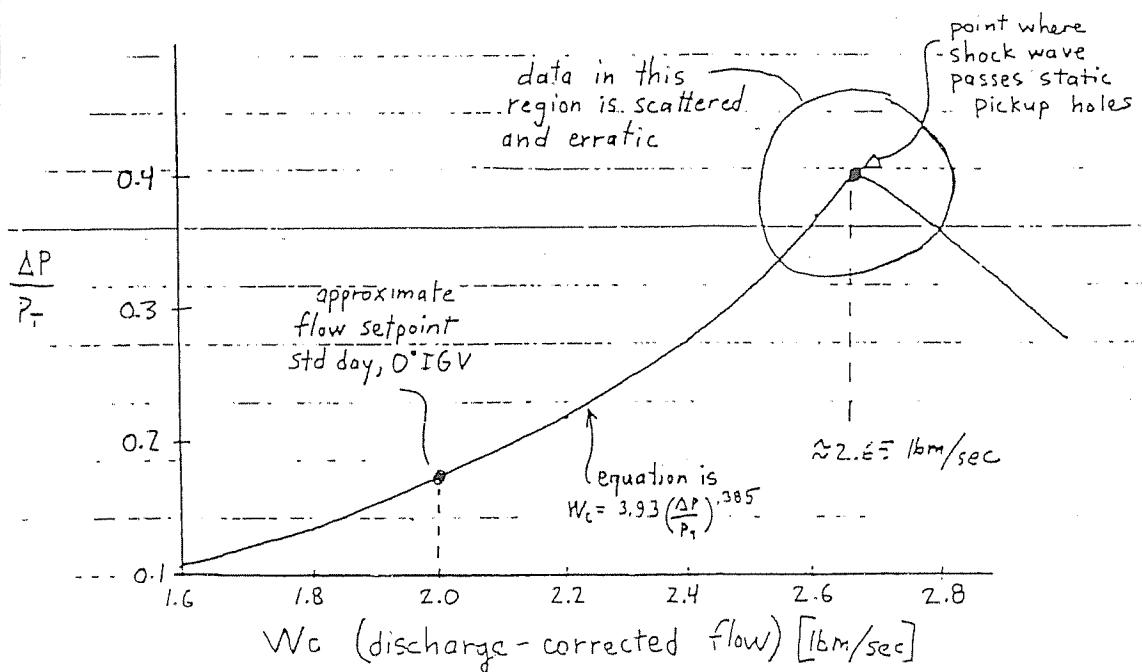


Figure 2 Flow Sensor Characteristic



**CERTIFICATE OF SERVICE**

The undersigned counsel certifies that, on April 28, 2006, he electronically filed the foregoing document with the Clerk of the Court using CM/ECF, which will send automatic notification of the filing to the following:

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